

# GARDENS AND THE ENVIRONMENT

## THE TOUR

The East Asia Outreach Coordinators embarked on a 10-day planning trip in 2018 to create an experiential tour of China, Japan and Korea for teachers. From traditional gardens to smart city agro-parks, the goal of the U-M East Asia NRC experiential program was to build a visual and working philosophy of sustainability for secondary and post-secondary classrooms. Seeking continuity in aesthetics and variation in practice within the urbanscapes of Beijing, Seoul, and Kyoto, this study abroad project would highlight garden culture, geography and environmental practices. A sampling of what was experienced, and which could be adapted as a template in the future, is provided below:

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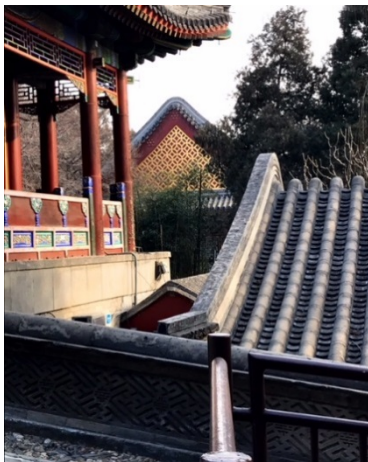
*Water and rock form the core yin yang duality in Asian gardens and landscapes (Chinese: shan shui)-water animates the garden trickling over rocks, roaring in cascades, murmuring in streams or pooling in fish-laden reservoirs, enhancing garden experiences by sound and reflection, multiplying the visual effect, and bringing essential nutrients for plantings. Rocks are symbolic mountains--places where energizing qi or wind breeze through the holes and crevices of strategically positioned rocks.*

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### Arrival: BEIJING

*Beijing Unleashed: Summer Palace; Beijing's first CSA; Red Brick Museum's outdoor garden; and The Orchard with a working garden, restaurant, hutong lodge, and a museum on farming that houses objects dating from the Great Leap Forward through the Cultural Revolution—perfect yin/yang duality from domestic to imperial, contemporary to historical, local to global. Lodging in the Bamboo Garden Hotel—historic residence converted to a hotel surrounded by shady bamboo groves, rockwork, fountains, winding galleries and pavilions—located in a quiet alley near Beijing's Drum Tower*

*Additional Beijing Venues: Gong Wang Fu (Residence of Prince Gong, Qing dynasty, brother-in-law to the Empress Dowager Cixi) Visitors can follow winding paths through the garden to view pagodas and buildings typical of late 19<sup>th</sup> century garden design.*



Site 1: SUMMER PALACE--China's largest imperial garden, a taste of artifice, imagination and storytelling...

Tour:

*In the dry plains of northern China, expansive gardens were made to resemble the lush environments of the south--so where did the water come from to sustain such innovation?*

The water sources for China's largest imperial garden, the Summer Palace, are man-made and began in the Yuan dynasty during the 13th century--an imperial waterworks project directed water from Shenshan Spring into the Western Lake (later to become Kunming Lake) for needs of the palace built on Jade Spring Hill in northwest Beijing.

Entering the Summer Palace today, referred to as "Yihe Yuan" (Garden of Nurturing Harmony, re-named in 1888 during Empress Dowager Cixi's renovation) from the northern gate, allows a leisurely-paced introduction to the complete garden aesthetic, a chance to appreciate a landscape of densely cloistered trees and winding paths--requisite building blocks to classic garden essentials: rock, water, plants and architecture. The path leads to an overlook of the Suzhou Market street and riverlet--many features were built to resemble attractions around China when emperors returned from tours of inspection--and this was meant to capture the beauty and bustle of Suzhou and Yangzhou in the south.



The vibrancy of the Suzhou scene gives way to the elegance of the Garden of Harmonious Interests ("Xiequyuan"), the most representative of the classical gardens of Suzhou replicated for the northern capital. Here, pathways wind around a lotus pond, long corridors, painted retreats, and the Bridge of the Joy of Fish, a place to enjoy a famous anecdote in the Daoist Classic Zhuangzi, where the Daoist master and his friend debate over how--and whether--it is possible to know the happiness of fish. The garden is especially known for its eight settings

that highlight particular themes such as the change of seasons, the acoustic sound of water, and the aesthetics of calligraphy and painting.



The next major site is situated in the Courtyard of Virtue and Harmony and opens to the spectacular Grand Theatre, the setting for the Qing Dowager Empress's passion for Peking opera. The theatre is 3 stories high equipped with trap doors, deep wells and ponds which were meant to amplify the sound effects through acoustic resonance--special effects could be created for the fantastic appearance of immortals and dragons. The contrast of stagecraft and celebration against an orchestrated garden retreat is, in some ways, complementary, showing the seamless melding of aesthetics and imagination with nature, literature and art.





### Site 2: RED BRICK MUSEUM

On-site visit: Meet with curator. From the layered experience of an historic, imperial garden, the next site shifts emphasis to a contemporary landscaped courtyard, the Red Brick Museum, an exhibition space for modern and performance art located in the No. 1 International Art District of northeast Beijing. Designed as an architectural and botanical highlight for the Museum, the backyard garden spreads over extensive grounds and is dedicated to the melding of nature, sculpture and art. As if a game of hide and seek, viewers can pass through the niches and hideaways of this unique red brick arboreal playscape—twisting through tight passes, crossing over stone-laden waterways, hiding within lattice-crossed shadows, or shimmying against environmental artworks such as Olafur Eliasson’s Blind Pavilion. The setting allows an unshackled experience of nature and architecture, a fresh vision of traditional form and style that engages the broader audience through environmental art projects and unique interventions in public space.



### Site 3: THE ORGANIC FARM



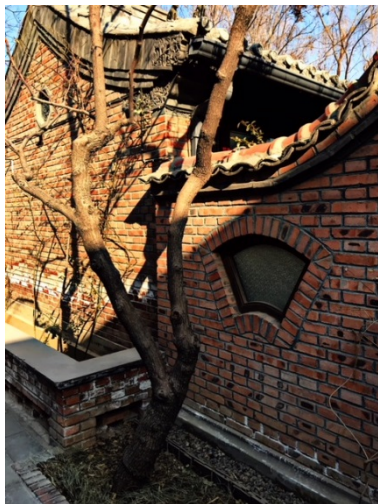
Tour:  
A fine line exists between the artfully constructed garden (*yuan*) and the divided field (*tian*)--the productive land of edible crops, orchids, and ponds, once an important feature of gardens. Today, this aspect of traditional gardening has given way to small scale farming in China—a popular endeavor for a well-educated middle-class population in urban settings. China's history of traditional

and ecological farming stretches back some 4000 years--and although China ranks first in worldwide farming output, trust in farming has been undermined by pollution, pesticide and chemical fertilizers. Mixed land use and innovative techniques on smaller plots of lands has thus become a desirable alternative--promoting urban sustainability and resilience by bringing food production closer to consumers and reducing the environmental footprint.

Little Donkey Farm is featured on the itinerary as one of China's first CSAs (Community Supported Agriculture)--a joint initiative between the Agriculture and Forest Ministry of Beijing with Renmin University to offer chemical free cultivation of fruits and vegetables. Volunteers (including artists, white-collar workers, and teachers) build soil health with knowledge and techniques from traditional practices, permaculture, and natural farming principles.

The farm has a greenhouse for growing vegetables in winter, divided plots of land with working share and regular share members, compost heaps to make their own organic fertilizer, and pens for livestock and chickens.

Brightly colored murals decorate the community buildings where volunteers and members gather for training, research and community activities--plots are named and intricate pebble designs cover selected pathways. Today over 800 CSAs are forming partnerships between producers and consumers, contributing to new food systems in more than a dozen cities across the country. Little Donkey Farm's educational focus also makes it a likely setting for teacher student exchange in an international setting.



The Orchard, located across from the Red Brick Museum, is another example of a working model of a productive garden. This site bolsters the definition of rural farm through the addition of a

conference and wedding hall, museum and restaurant, hutong lodging, and boutiques for the sale of locally made handicrafts, furniture and clothing.

Additional offerings: Beijing offers a range of activities and resources to set the stage for building a garden aesthetic—additional opportunities include biking (pedicab) excursions through traditional hutong neighborhoods, visits to tea houses, tours to museums for a viewing of classical *guohua* landscape paintings and contemporary art interpretations of China's land and terrain.



## Arrival: SEOUL

*Seoul-the river runs through it...metro parks, rooftop gardens, imperial lounging grounds, Zaha Hadid's giant grass covered nebulae-urban strategies that pivot around culture, creativity, and greenescapes*

The city of Seoul itself is the very embodiment of ideal fengshui; a dramatic rock and hilly backdrop of four major mountains with the Han waterway bisecting the city into northern and southern halves. A large number of parks are spread throughout the city despite the area's population density--here, the environmental definition of nature is observed in the everyday places where one lives. Somewhere between World Heritage Sites and Biosphere preservation, Seoul takes the initiative of creating a novel designation for Towns and Cities, by recognizing places that demonstrate cultural, ecological and spiritual value.

### Mountains and Streams

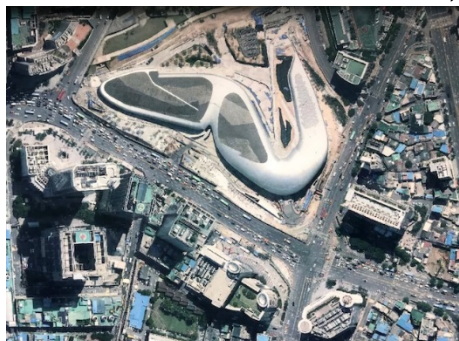
The city is bordered by eight mountains with four main mountains in central Seoul: Namsan, Naksan, Bukaksan and Inwangsan. The summits of these four mountains are accessible and hike-able—the trail to the foothills of Inwangsan Mountain, for example, skirts the middle of Seoul and cuts through through dense woods and valleys, passing historic altars and shrines, with opportunities to recount of the city's history, ecology and culture.

### Site One: CHEONGGYECHEON Museum and Stream

Tour: The stream that divided Seoul geographically, politically and socioculturally, Cheonggyecheon, served as the capital city's downtown stream for hundreds of years. During the urban river's early history, people lived alongside the stream—later, during Japanese colonial rule, the stream was covered as part of an overall urban planning project to build roads and bridges for transport. By the late 1990s and early years of the millennium, however, emerging environmentalists and preservationists were able to restore the Cheonggyecheon River, redirecting budgetary resources to create a new waterway and renewed stream, now a central environmental and tourist site in the heart of Seoul. The Museum is a cultural complex that includes a permanent exhibition gallery, special exhibition gallery, and an education room and auditorium. The venue presents the history, culture and future of Cheonggyecheon.

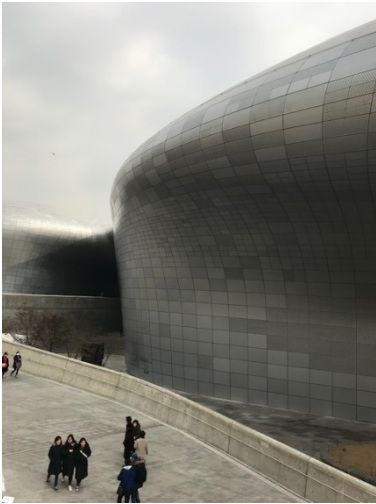


### Site Two: GREEN MODERNISMS, Dongdaemun Design Plaza and Rooftop Gardens



#### Tour:

Seoul's urban development and building of naturescapes was largely influenced by the catchphrase "Creative Soul"—a mega urban redevelopment campaign launched in 2008—one of the most dramatic projects was the Dongdaemun Design Plaza (DDP)—located in the former garment district. Designed by globally renowned architect



Zaha Hadid, the DDP blurs, as the architect states “the boundary between architecture and nature in a continuous, fluid landscape”—its aluminum clad curved, organic outer surface is covered with green grass (brown in the winter).



While the DDP is criticized by some for displacing a historically charged local site, a group of activists and artists conducted ‘action research’ and found an abandoned rooftop of an old market building. Here, they created a site for a community art space with workshops, beekeeping and gardening.

In cooperation with the Green Seoul Citizen Committee, the city initiated a project named “Creation of 100,000 Green Roofs.” Roof gardening and wall greening are green space expansion projects that Seoul has actively promoted. Roof gardening can lower the temperature inside buildings resulting in relaxation of urban heat island effects. Roof gardening also improves the appearance of the city landscape. Deserted roofs can be used as a space for rest, recreation, education or urban agriculture for cultivating vegetables and fruits. These newly created spaces give spiritual comfort to residents and ultimately enhance the appeal of the residential environment.



<https://www.seoulsolution.kr/en/content/roof-gardening-support-project-private-buildings>

### Site Three: HOME AND PALACE Domestic and Imperial Landscape Harmony

Tour:

Imperial and domestic architecture are designed with gardens as part of an overall plan to anchor a contemplative and tranquil retreat for residents and visitors.



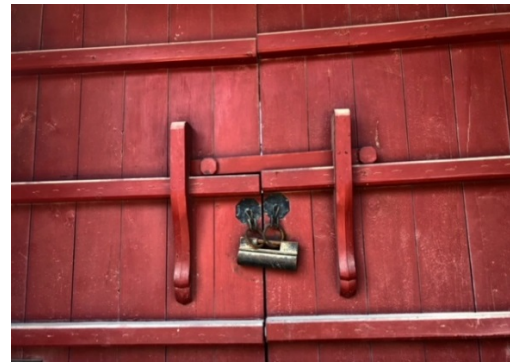
Bark In-Je House Museum is a hanok (traditional house) representative of the Japanese occupation period. The house is composed of an *anchae* (women's quarters) and *sarangchae* (men's quarters) connected to each other with a hallway. Japanese-style hallways with tatami mats reflect conditions at





the time of construction. The house also features traditional heating, an environmentally system, *ondol*, in which wood burning in a firebox heats the floor stone slabs. Contemporary architects are returning to *hanok* characteristics in the design of new homes incorporating compact geometric forms reminiscent of traditional architectural styles.

Imperial taste and living quarters are reflected on a grandiose scale at the Changdeokgung Palace, constructed in 1405 as a secondary palace of the Joseon Dynasty and rebuilt in 1610, serving as the main palace for about 270 years. The Palace was favored by kings of Joseon Dynasty because of the spacious and beautiful garden in the back, referred to as the Secret Garden, and taking up almost 60% of the entire area of the Palace. Preserving the original topography, garden areas were planted in each valley and a series of lotus ponds were built. Small pavilions were also built along the stream that flows through the rear garden. The Secret Garden historically hosted various outdoor activities for the royal family from archery contests to imperial banquets and was the site of royal planting and sericulture activities--today, visitors can view about 200 species of wild plants in some of the Garden's designated fields used for food, medicine, and decoration.



#### Site Four: School Sitings

Accessible walking sites through Seoul are marked by plaques and buildings dedicated to former sites of Korean schools, displaced in the years of modernization to make room for industrial and economic growth in the heart of city. Plaques are a commemorative gesture demonstrating the value of public schooling in Korean culture. Still standing today is the main hall of Kyunggi High School which was established in 1900 as Korea's first school of secondary education--at the time, it was the finest school building of the period complete with a modern-style steam heating system. Today the building, highly value for its historical significance as the birthplace of public secondary education, is used as a library, and the school itself moved in 1976 to Gangnam, a district in the southern area of the city.



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## Arrival: Kyoto/Osaka

*Osaka/Kyoto--On the last leg of our gardening/sustainability planning trip, the tanuki (badger) that we saw in Seoul lucked us into plush business class leaving Seoul, but trickster that he is, brought a steady stream of rain/snow as we trekked through the Japanese gardens of Expo '70 and gale winds when we tried to arrange a river tour; revived by a hot spring hostel, untrammled nature, and Silver Temple gardens in Kyoto; and, just when you think you've seen it all, a Gaudi-esque, green-friendly incineration plant in Osaka...*



As an island nation, Japan has a deep connection with water and land, creating a cultural history where water and life go hand in hand. In Japan, water bridges past and present, tradition and modernity. Kyoto, one of Japan's oldest cities and best known tourist destinations, has enjoyed the benefits of water for centuries—surrounded by three rivers, Kyoto has ample freshwater so vast that the city is described as sitting atop a large natural water table. Today, Kyoto is one of the few cities in Japan combining historic temples, traditional Japanese houses, and prewar architecture with innovation as is visible in Kyoto's modern central train station and high-speed transit systems.

Side by side with modernity, temples and shrines demonstrate the relationship between Japanese water and religion—Shinto shrines, (Shinto meaning :the way of the gods), focuses on the worship of deities called *kami*—invisible spirits believed to dwell in elements of nature such as trees, rocks, and waterfalls. Buddhist temples co-exist with Shinto shrines and historically shrines and temples shared a symbiotic relationship in religious practice. Dry landscape gardens were particularly common at Zen temples in Kyoto as were verdant paths winding along tree laden mountainscapes.

### Site One: Ginkakuji Temple

Tour:

Ginkakuji (銀閣寺, Silver Pavilion) is a Zen temple along Kyoto's eastern mountains (Higashiyama). In 1482, shogun Ashikaga Yoshimasa built his retirement villa on the grounds of today's temple, modeling it after Kinkakuji (Golden Pavilion), his grandfather's retirement villa at the base of Kyoto's northern mountains. The villa was converted into a Zen temple after Yoshimasa's death in 1490. It is popularly known as *Ginkaku*, the "Silver Pavilion" because of the initial plans to cover its exterior in silver foil.

Along the route is an expansive, dry **sand garden**, known as the "Sea of Silver Sand", with a massive sand cone named "Moon Viewing Platform". A walking path takes visitors through Ginkakuji's **moss garden**, which features ponds with islands and bridges, streams and various plants.





## Site Two: Expo '70 Commemorative Park

### Tour:

The Expo '70 Commemorative Park (万博記念公園, Banpaku Kinenkōen) is a very large, public park in Osaka, located about 30 minutes north of the city center. The spacious grounds hosted the Japan World Exposition in 1970, the first of its kind in Asia. After the completion of the



World Expo, the grounds were converted into the Expo Commemorative Park and opened to the public. The grand pavilions made way for trees or newly planted forests, gardens and wide lawns and plazas lined by flowering plants and trees. Around 5000 cherry trees populate the grounds. The Japanese Gardens at the Park are less than fifty years old yet showcase four styles cultivated over the past



1,000 years or more: Ancient, Medieval, Early Modern and Contemporary. The **ancient** style of garden dates from the Heian Period (794-1185), and like much of the culture of the ruling elite of Japan, the design of the gardens were introduced from China. A picturesque place would be chosen as a garden site. Waterfalls, channels of water, and garden rocks were arranged to complete a garden style fit for a nobleman's residence.

This was Japan's first stylized form of garden, the archetype of the styles that follow.

The **medieval** style of garden is from the periods of the 12th to 16th centuries. The greatest influence on garden design in this period was the introduction of Zen Buddhism. This was when the *karesansui*, the dry gardens, were first introduced, with raked sand used to represent water--gardens also placed an emphasis on the beauty of rock work. This was the era (16<sup>th</sup> century) in which the tea house garden style, pursuing *wabi* (austerity) and *sabi* (simplicity), developed as a result of the popularity of the tea ceremony. **Early Modern** refers to the period from the 17th century until the 19th century and was the time of the **Chisen Kaiyushiki** style of strolling garden; many *daimyo* (feudal lords) built park-like sites featuring a large body of water around which paths took the visitor in and out of different sections and offered different views.

The **Contemporary** style of garden is a twentieth century creation influenced by formal gardens of the West and designed in a bright and expansive style. New landscape techniques include cut granite. The lotus pond, however, harks back to traditional Buddhist tenets—that of *samsara* or transmigration of the souls, and thus a contemplative retreat suggesting release from the bonds of past deeds. For the first time Japanese gardens have become "abstract", referring to a blending of Eastern and Western concepts, and employing a whole new set of criteria, free and easy in atmospheric detail and complemented by a full array of seasonal flowers.

### Site Three: The Maishima Incineration Plant

#### Tour:

There is no shared definition of what makes a country, business or person “green” or environmentally friendly—however, based upon its landscape, policies, technologies and practices, Japan appears to be more eco-friendly than most nations—even with its complicated history of pollution, industrial waste, whaling management, and deforestation. A case in point is the Osaka Maishima Incineration Plant, built to handle waste treatment and foster environmental conservation. The Maishima Incineration Plant is equipped with an incinerator and a crushing plant for bulky waste combined with the most advanced filter



systems. Noted Austrian environmental conservation architect, Friedensreich Hundertwasser was engaged to design the exterior along with its 120-metre chimney stack, making this plant a popular mecca for study

tours. The plant was planned by the Japanese architectural team Showa Sekkei within the context of the "Maishima Island Project" for the city of Osaka. Three stories were designed as an adventure world with a didactic component in order to make visitors, especially school children, conscious of the problems of waste and to encourage their cooperation in working towards a garbage-free society. The outer façade of the plant includes living trees which were uprooted in the building footprint.



### ASSESSMENT/postTRIP

Reflection on experiences in Asia

How have your conceptions on sustainability and gardening changed? What have you learned about the lives of people in China, Japan and Korea that stand out—what are salient similarities and differences—how would you share this knowledge in the classroom?

In what ways can you advocate for new directions in Asian studies with school administrators and curriculum directors?





